

**REMARKS**

Claims 11-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 6 of U.S. Patent No. 6,151,573. Included herewith is a terminal disclaimer to overcome the double patenting rejection. This terminal disclaimer is signed by Wade James Brady, III, Vice President Patent Prosecution for Texas Instruments Incorporated. The rejection based on the judicially created doctrine of obviousness-type double patenting should therefore be removed.

Claims 11-13 are rejected under 35 U.S.C. 102 (b) as being anticipated by Woodland et al. Iterative unsupervised adaptation using maximum likelihood linear regression).

Applicant's new claim 11 calls for:

“A method of source normalization for modeling of speech comprising the steps of: providing an initial speech recognition model and performing a set of transformations on said initial speech recognition model or following new speech recognition models to reduce the recognition error rate by determining new speech models and determining new transformations jointly with the new speech models.”

There are two important components in the procedure of both Woodland and applicants. They are speech models and transformations.

The key issue is the words in our claim of “determining new speech models and determining new transformations jointly (emphasis underlined).”

In Woodlands the speech models are determined and left unchanged, then the transformations are determined. During the determination of the transformations, the speech models are NOT changed anymore. Such procedure without changing the original speech models is suboptimal.

In applicant’s teaching, we start from an initial speech model, we then determine the new speech models and determine the new transformations at the same time, namely jointly. This procedure gives the best possible combination of speech models and transformations. The advantage over Woodlands is illustrated in the experimental results presented in the application.

Applicant’s claim 12 dependent on Claim 11 is deemed allowable for at least the same reasons as claim 11. Claim 12 further calls for “said set of transformations includes an application of an estimation maximization algorithm.”

Claim 13 calls for “An improved speech recognition system comprising:  
a speech recognizer; and  
a source normalization model coupled to said recognizer for recognizing incoming speech;  
said model derived by a method of source normalization training for HMM modeling of speech comprising the steps of:  
providing an initial speech recognition model;  
performing on said initial speech recognition model or following new speech recognition models transformation steps to get a new speech recognition model to reduce the

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recognition error rate by determining new speech recognition models and determining new transformations jointly with new speech recognition models; said transformation steps including application of estimation maximization algorithm.”

This is not taught in Woodlands for the reasons discussed above.

Since there are no other reasons presented for rejection of the claims applicant's claims 11-27 is deemed in condition for allowance and an early notice of allowance is respectfully requested

Respectfully submitted;

A handwritten signature in cursive script, appearing to read "Robert L. Troike".

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